000550 "T1.T085C0

FIG. 1

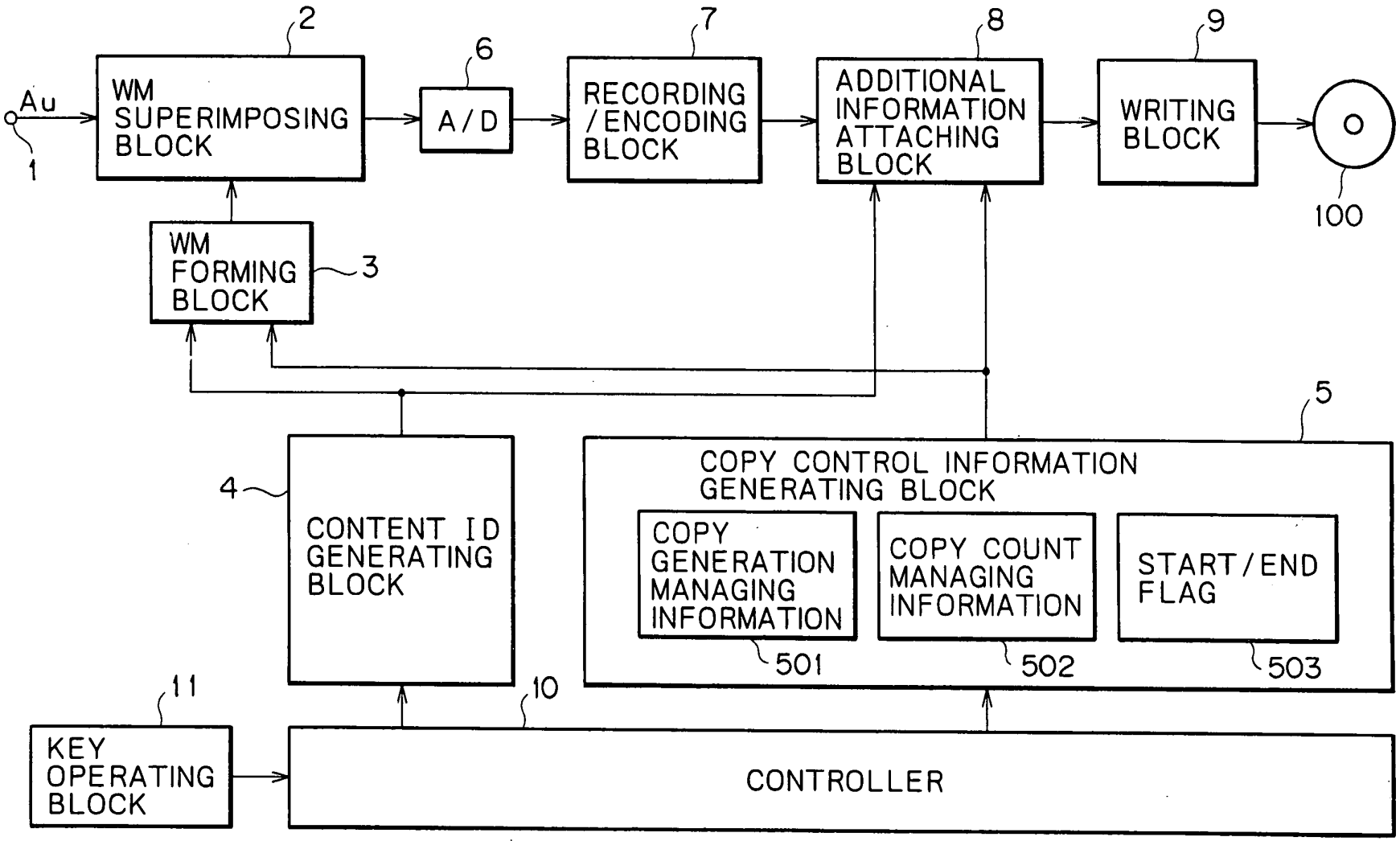
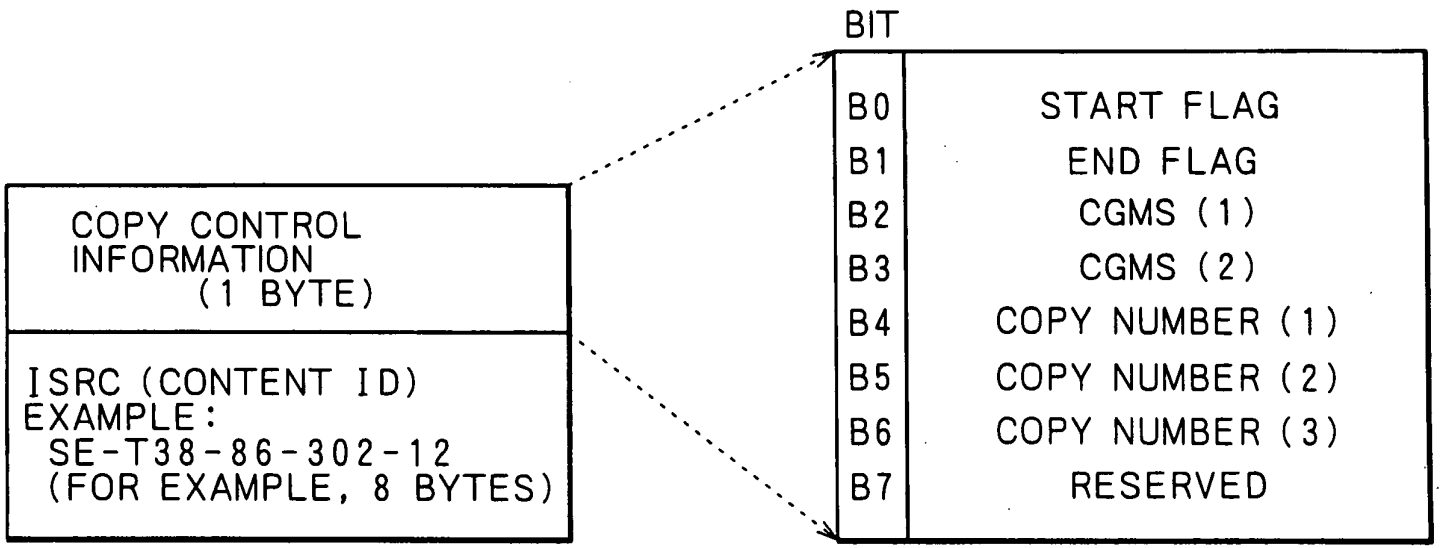
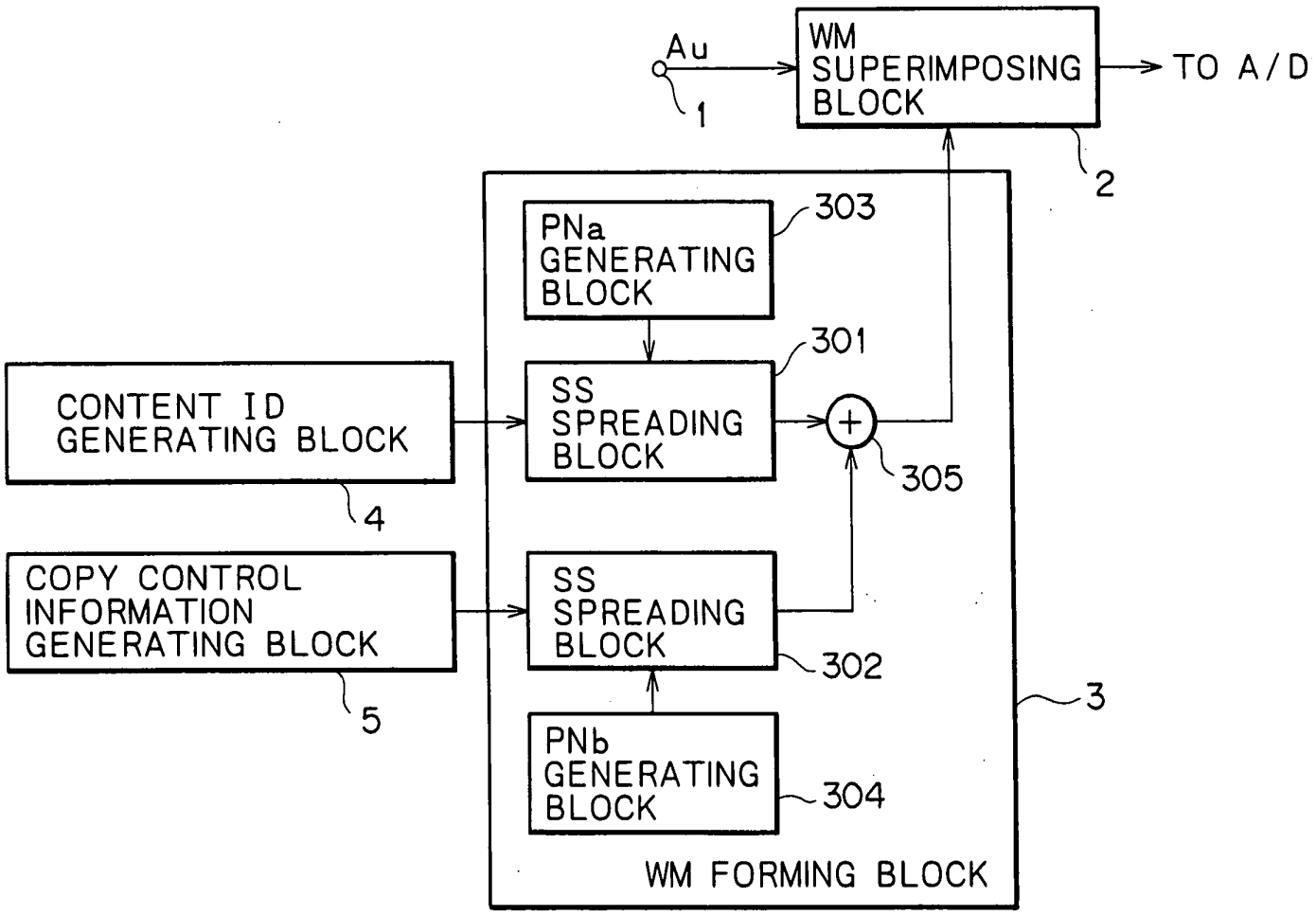


FIG.2


BIT
COPY CONTROL INFORMATION (1 BYTE)
ISRC (CONTENT ID)
EXAMPLE:
SE-T38-86-302-12
(FOR EXAMPLE, 8 BYTES)
B0 START FLAG
B1 END FLAG
B2 CGMS (1)
B3 CGMS (2)
B4 COPY NUMBER (1)
B5 COPY NUMBER (2)
B6 COPY NUMBER (3)
B7 RESERVED

0085501 "1.1085C0

FIG. 3



0005501 T1:T0S5C0

FIG. 4

EXAMPLE OF DATA EMBEDDING METHOD BASED ON WATERMARK

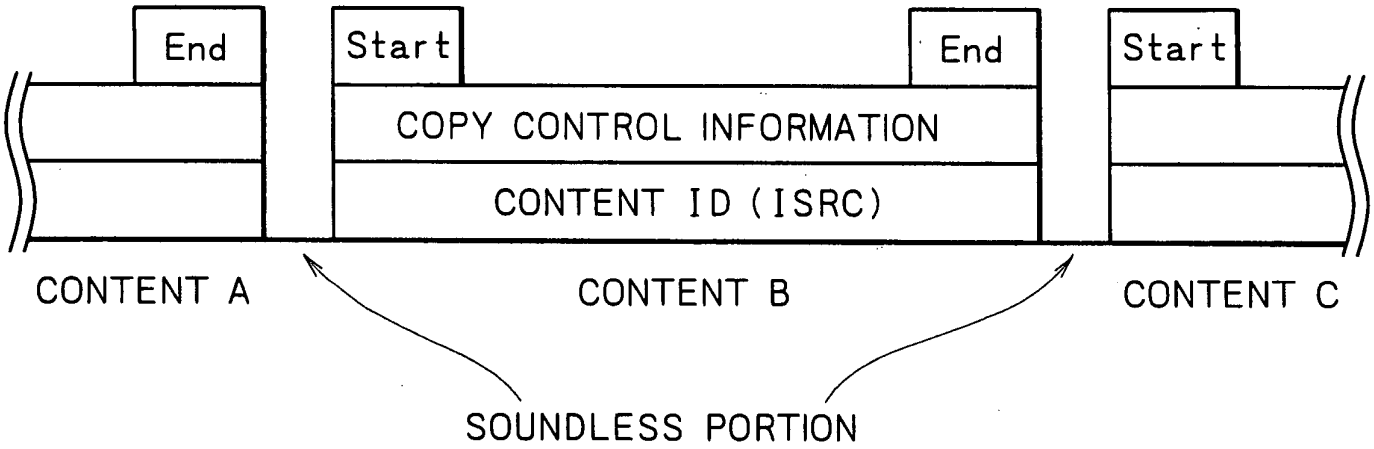


FIG. 5

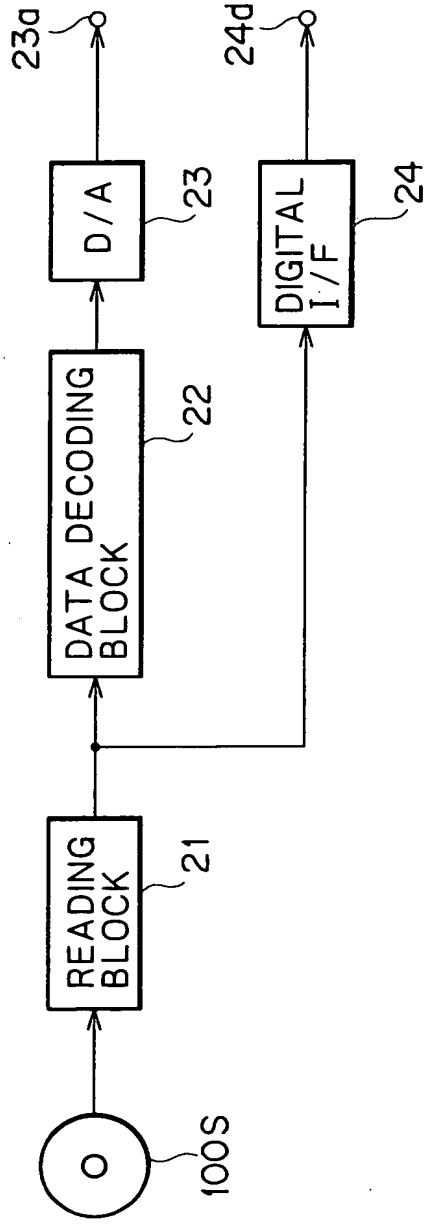

100S
READING BLOCK
21
DATA DECODING BLOCK
22
D/A
23
23a
DIGITAL I/F
24
24d

FIG. 6

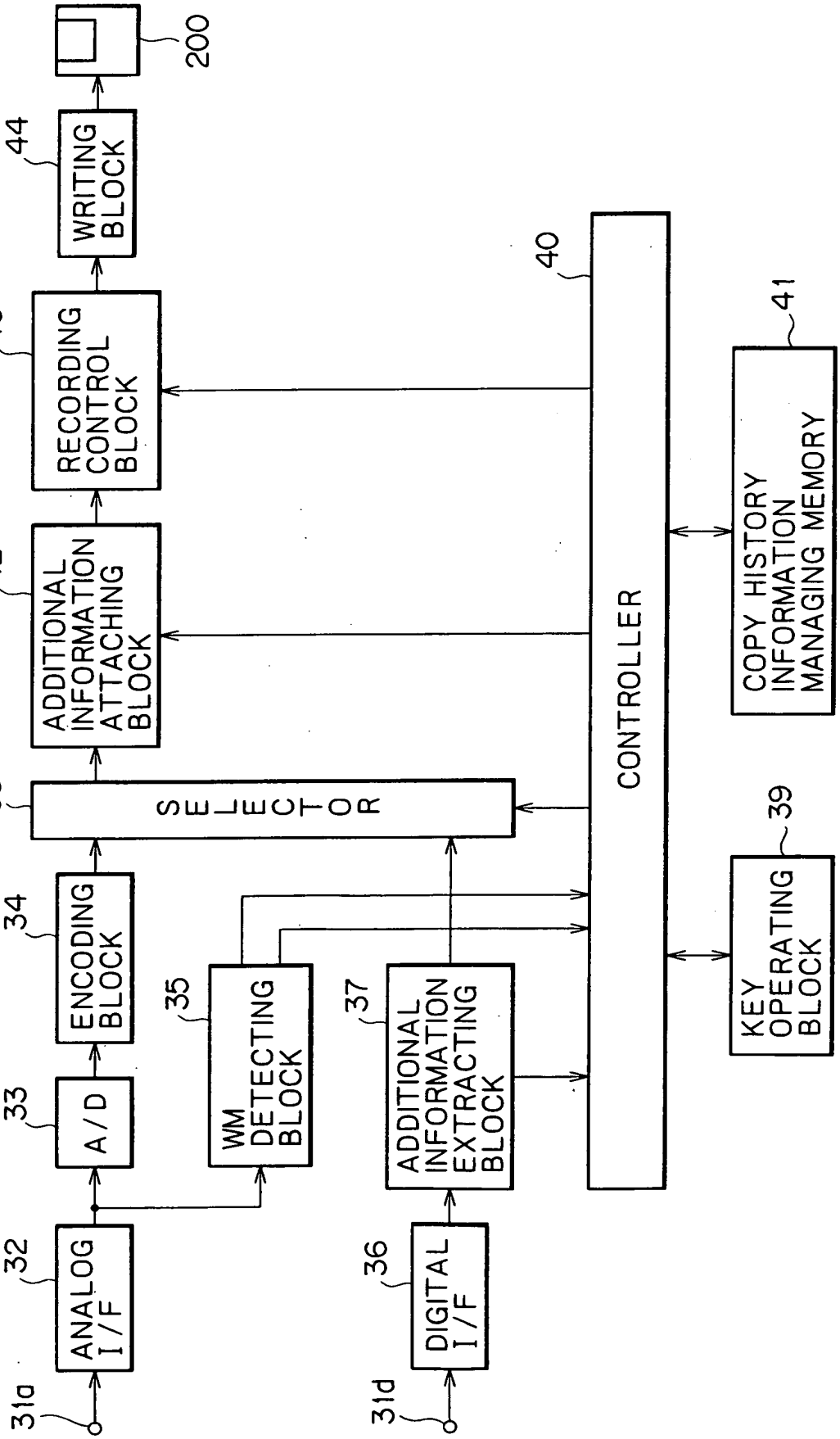

31a
ANALOG I/F
32
A/D
33
ENCODING BLOCK
34
WM DETECTING BLOCK
35
31d
DIGITAL I/F
36
ADDITIONAL INFORMATION EXTRACTING BLOCK
37
SELECTOR
38
ADDITIONAL INFORMATION ATTACHING BLOCK
42
RECORDING CONTROL BLOCK
43
WRITING BLOCK
44
200
CONTROLLER
40
KEY OPERATING BLOCK
39
COPY HISTORY INFORMATION MANAGING MEMORY
41

FIG. 7

TB

CONTENT ID	COPY PERMITTED COUNT
CONTENT 1	3
CONTENT 2	1
CONTENT 3	2
•	•
•	•
•	•
•	•
•	•

FIG. 8

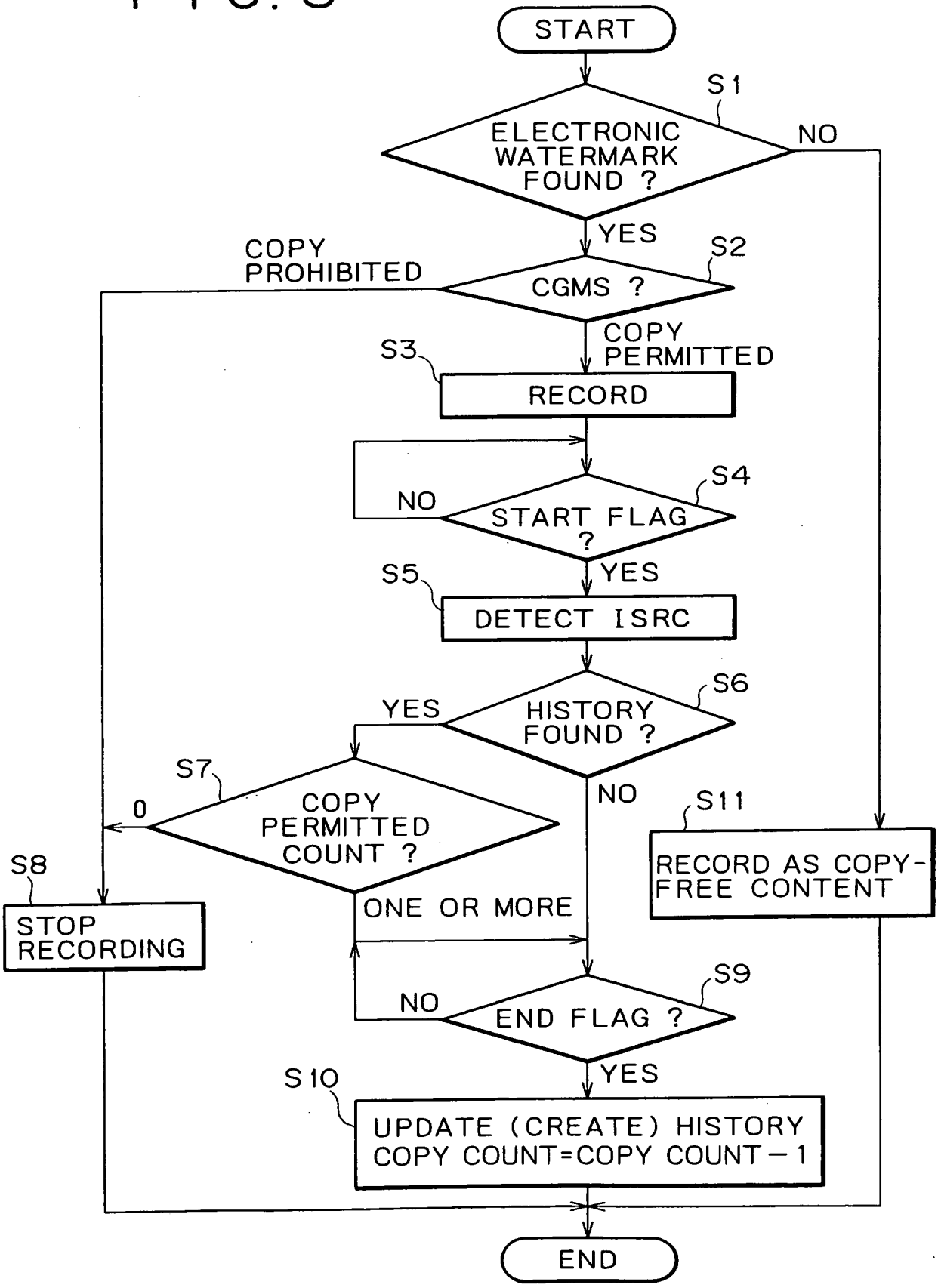

START
S1
ELECTRONIC WATERMARK FOUND ?
NO
YES
COPY PROHIBITED
S2
CGMS ?
COPY PERMITTED
S3
RECORD
S4
NO
START FLAG ?
YES
S5
DETECT ISRC
S6
YES
HISTORY FOUND ?
NO
S7
0
COPY PERMITTED COUNT ?
S11
RECORD AS COPY-FREE CONTENT
S8
STOP RECORDING
ONE OR MORE
S9
NO
END FLAG ?
YES
S10
UPDATE (CREATE) HISTORY
COPY COUNT=COPY COUNT−1
END

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FIG. 9

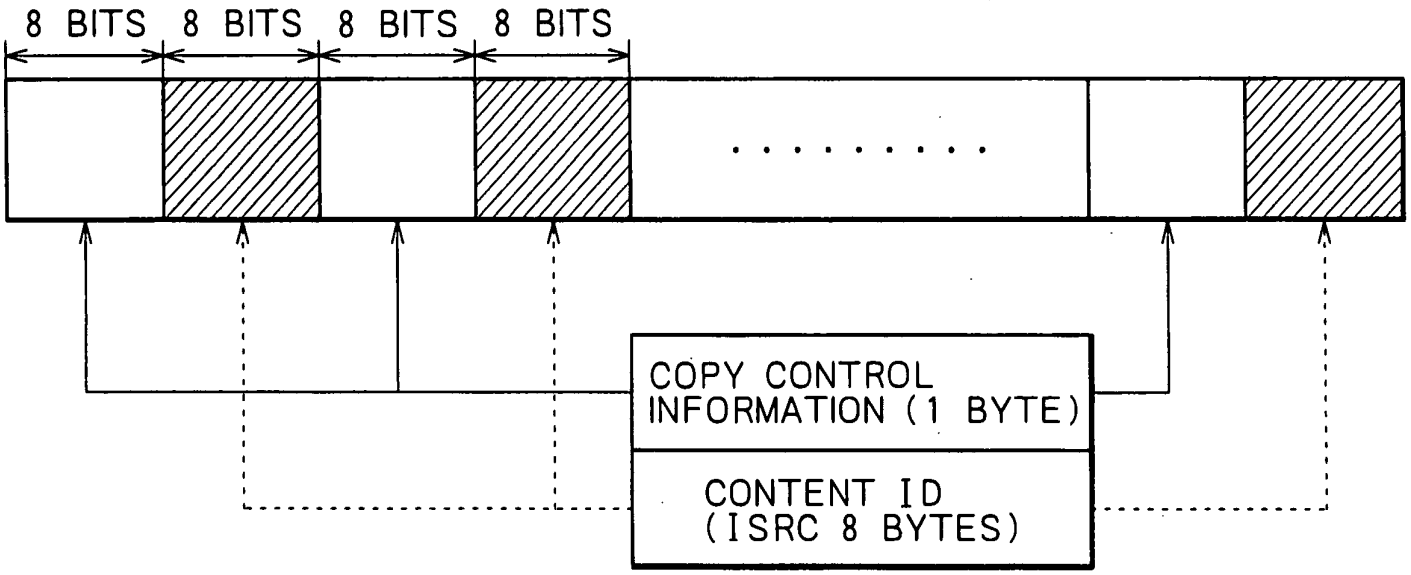


FIG. 10

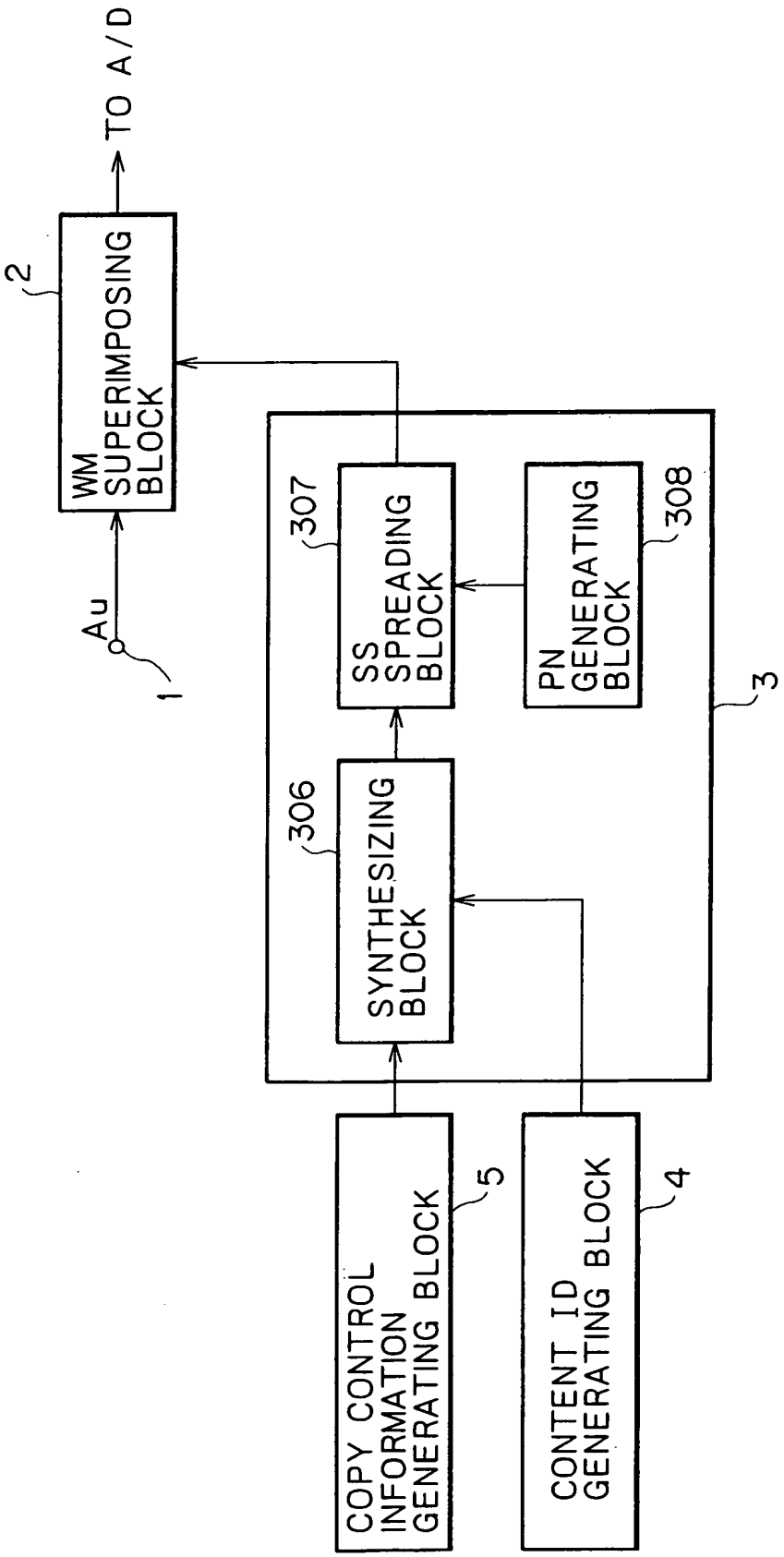
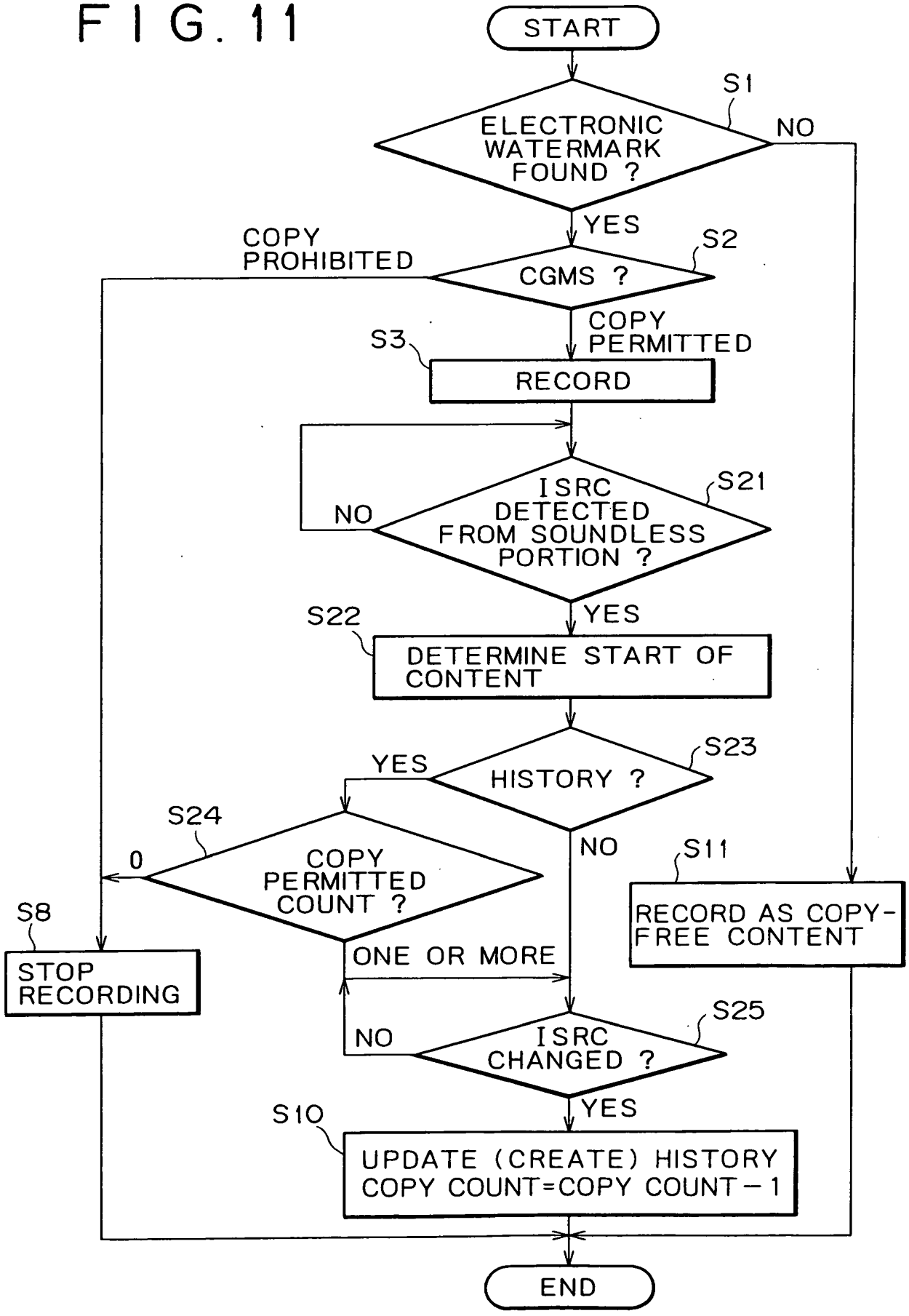

TO A/D
2
WM SUPERIMPOSING BLOCK
Au
1
307
SS SPREADING BLOCK
308
PN GENERATING BLOCK
306
SYNTHESIZING BLOCK
3
COPY CONTROL INFORMATION GENERATING BLOCK
5
CONTENT ID GENERATING BLOCK
4

FIG. 11


START
S1
ELECTRONIC WATERMARK FOUND ?
NO
YES
COPY PROHIBITED
S2
CGMS ?
COPY PERMITTED
S3
RECORD
S21
ISRC DETECTED FROM SOUNDLESS PORTION ?
NO
YES
S22
DETERMINE START OF CONTENT
S23
HISTORY ?
YES
NO
S24
COPY PERMITTED COUNT ?
0
ONE OR MORE
S11
RECORD AS COPY-FREE CONTENT
S8
STOP RECORDING
S25
ISRC CHANGED ?
NO
YES
S10
UPDATE (CREATE) HISTORY
COPY COUNT=COPY COUNT−1
END